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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/652,494

09/02/2003

Takashi Nitta

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EXAMINER

DHINGRA, PAWANDEEP

ART UNIT

PAPER NUMBER

2625

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/652,494	<b>Applicant(s)</b> NITTA ET AL.	
	<b>Examiner</b> PAWANDEEP S. DHINGRA	<b>Art Unit</b> 2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17, and 21-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

- This action is responsive to the following communication: Request for Continued Examination (RCE) filed on 03/17/2008.
- Claims 1-17, and 21-23 are pending in the present application.

### ***Response to Arguments***

Applicant's arguments filed 03/17/2008 have been fully considered but they are not persuasive.

Applicant argues that none of the cited references disclose the newly amended limitations of claim 1, specifically the references do not disclose “*whereby the display section is configured to allow a user to verify whether a predetermined image is drawn on the image-forming surface, to avoid a production of unintended results, and to improve drawing data creating efficiency*”.

In reply, the examiner asserts that combination of Wellner and Naoki clearly teach all the limitations of claim 1 including the above stated newly added limitations (see discussion of claim 1 below).

Applicant further argues that the projected text or images of Wellner are not tangible images.

In reply, examiner asserts that Wellner teaches a display section for simulating a state where a tangible image is drawn on a surface 2, the display section and image forming surface are directly linked/connected to the printer device 208 such that from which a tangible image is formed as something tangible when the image is printed or a

sheet with the image is printed is pasted (see figure 1-2 and column 5, line 65-column 7, line 64). Also note, *“The desk-camera-projector arrangement (2,6,8) may be located remotely from the printing device 208 and any number of such arrangements may be linked up to a common printer. Alternatively, the surface 2 may itself constitute an upper surface of a copying or printing machine, or the surface of a desk next to such a machine, with the advantage that any documents created using the system may be immediately printed out and taken away by the user. The processor 10 may form an integral part of a copying or printing machine, or may be remotely located in a separate device and coupled to the printer by a conventional communications link. Various implementations of the present invention will now be described”* (see column 6, lines 36-48).

Applicant further argues that Naoki and Takeshi fail to disclose a tangible image.

In reply, the above argued limitations have already been addressed by the examiner in the previous office action dated 12/19/2007.

#### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/17/2008 has been entered.

### **Examiner Notes**

Examiner cites particular paragraphs, columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-5, 7-15, 17, and 21-23 are rejected under 35 U.S.C. 103 as being unpatentable over Wellner, US 5,511,148 in view of Manabe Naoki et al., JP 07-219068.

Re claim 1, Wellner discloses a preview device (see figure 1), comprising: display section (see figure 1) for simulating a state where a predetermined image (i.e. image 21) is actually drawn on an image-forming surface (i.e. surface 2) on which a

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tangible image is formed (see figure 1, and column 2, lines 27-44, column 5, line 65-column 6, line 17, and column 9, lines 20-25) as something tangible when the image is printed or a sheet with the image is printed is pasted unlike intangible images such as projected images (see figures 1-2; abstract; column 5, line 65-column 7, line 64, note that Wellner teaches a display section for simulating a state where a tangible image is drawn on a surface 2, the display section and image forming surface are directly linked/connected to the printer device 208 such that from which a tangible image is formed as something tangible when the image is printed or a sheet with the image is printed is pasted). (Also note, *"The desk-camera-projector arrangement (2,6,8) may be located remotely from the printing device 208 and any number of such arrangements may be linked up to a common printer. Alternatively, the surface 2 may itself constitute an upper surface of a copying or printing machine, or the surface of a desk next to such a machine, with the advantage that any documents created using the system may be immediately printed out and taken away by the user. The processor 10 may form an integral part of a copying or printing machine, or may be remotely located in a separate device and coupled to the printer by a conventional communications link. Various implementations of the present invention will now be described"*, see column 6, lines 36-48), and display information acquisition section (see figure 2) for acquiring display information about actual display state of the image displayed by the display section on the image-forming surface (see figures 6a-6f, and column 13, lines 1-column 15, line 6), whereby the display section is configured to allow a user to verify whether a predetermined image is drawn on the image-forming surface, to avoid a production of unintended results, and to improve drawing data creating efficiency (see abstract; figures 1-2, 6-10; column 13, lines 1-column 15, line 6; column

11, lines 10-26, column 16, line 55-column 17, line 24, note that user only prints the image once he/she is satisfied or has verified the correctness of the predetermined image drawn on the image-forming surface, and hence, it is clearly apparent that this avoids a production of unintended results, and improves drawing data creating efficiency).

Wellner fails to explicitly disclose wherein, said display section comprises a projection plane information detector for detecting projection plane information about the projection plane, a projection adjuster for varying a projection adjustment value, a projection data generator for determining a mode in which content data is projected, with reference to projection plane information received from the projection plane information detector as well as to the projection adjustment value received from the projection adjuster.

However, Manabe Naoki et al. teaches a display section (screen 8, see abstract) comprises a projection plane information detector for detecting projection plane information about the projection plane (see abstract, paragraphs 2-4, 12-21, 23) , a projection adjuster for varying a projection adjustment value (see abstract, paragraphs 2-4, 12-21, 23), a projection data generator for determining a mode in which content data is projected, with reference to projection plane information received from the projection plane information detector as well as to the projection adjustment value received from the projection adjuster (see abstract, paragraphs 2-4, 12-21, 23) .

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to modify the interactive copying system as disclosed by Wellner to

include image recording & printing device as taught by Manabe Naoki for the benefit of “easily position an image from a 1st image recording medium and easily record it at a desired position on a 2nd image recording medium when the image from the 1st image recording medium is recorded on the 2nd image recording medium” as taught by Manabe Naoki in abstract.

Re claim 2, Wellner further discloses the display information contains at least the size of the displayed image on the image-forming surface, position (i.e. location) of the displayed image on the image-forming surface, or color of the displayed image on the image-forming surface (see figures 6a-6f, and column 13, lines 1-column 15, line 6).

Re claim 3, Wellner further discloses correction section for changing the display state of the image displayed by the display section on the image-forming surface (see figures 6a-6f, and column 13, lines 1-column 15, line 6).

Re claim 4, Wellner further discloses the display section simulates a state where an image is actually drawn on the image-forming surface by projecting light on the image-forming surface (see figure 1, and column 5, line 65-column 6, line 17).

Re claim 5, Wellner further discloses the display information acquisition section acquires the display information based on at least the position of the display section to the image-forming surface, distance of the display section from the image-forming surface, projection angle of light projected onto the image-forming surface, or color of the image-forming surface (see column 11, lines 10-26, column 16, line 55-column 17, line 3).



Re claim 7, Wellner further discloses the display section includes a display which transmits light from one side to the other side of a display surface where images are displayed (see column 16, line 55-column 17, line 3) and the display section simulates a state where a predetermined image is actually drawn on the image-forming surface with the display superimposed over the image-forming surface (see column 16, line 55-column 17, line 3, and “desk-camera-projector arrangement” elements (2,6,8) in figure 1).

Re claim 8, Wellner further discloses generating drawing data for drawing (i.e. displaying) the predetermined image (i.e. image 21, figure 1) on the image-forming surface (i.e. surface 2, figure 1) nearly the same as the simulated predetermined image based on the display information (i.e. UI 252, figure 2) (see column 5, line 65-column 6, line 17, and column 16, line 55-column 17, line 3, note the system of Wellner projects the image, as seen on the display of UI 252, nearly as same or better according to the user’s preferences onto the imaging surface).

Re claim 9, Wellner further discloses drawing section (i.e. printer, see figure 1-2) for drawing (i.e. printing) the predetermined image tangibly based on the drawing data (i.e. image data) (see figure 1-2, and column 16, line 55-column 17, line 3).

Re claim 10, Wellner further discloses the drawing section draws the predetermined image directly on the image-forming surface based on the drawing data (see figure 1, and column 5, line 65-column 6, line 17, note that drawing section is part of the system disclosed in figure 1, see column 6, lines 35-48).

Re claim 11, Wellner further discloses the drawing section (i.e. printer) draws the predetermined image on a drawing medium added to the image-forming surface, based on the drawing data (see figures 1-2, column 5, line 65-column 6, line 17, and column 6, lines 35-48).

Re claim 12, Wellner further discloses the drawing section (i.e. copier) is capable of drawing (i.e. copying) the predetermined image on a plurality of drawing media (i.e. paper, see documents 4, and 20 in figure 6a-6f) by dividing it into parts (see elements 22, 26, 28 in figures 6a-6f) (see column 13, lines 1-column 15, line 6).

Re claim 13, Wellner further discloses the image-forming surface contains markers which serve as a guide for dividing the image-forming surface into multiple areas (see column 3, lines 4-15), the display information acquisition section acquires the positions of the markers on a displayed image, and the drawing section draws the predetermined image on a plurality of drawing media by dividing it into parts based on the positions of the markers (see column 3, lines 4-15, column 18, lines 1-11, note that Wellner does not explicitly disclose markers for dividing the imaging surface into multiple areas, and printing data on plurality of media. However, Official Notice is taken to note that ability to divide the imaging surface with markers is well known in the art. It would have been obvious to include markers to divide the three documents shown in figure 1 of Wellner to further separate them into three parts, which would then be printed on separate plurality of media for the benefit of enabling the user to clearly see distinct images on the imaging surface)

Re claim 14, Wellner further discloses the drawing section is a predetermined printer (see figures 1-2, column 5, line 65-column 6, line 17, and column 6, lines 35-48).

Re claim 15, Wellner further discloses the drawing section is an ink jet printer (see column 6, lines 60-65).

Re claim 17, Wellner further discloses acquiring the display information about a plurality of images, judging the shape of each image based on the display information, and laying out the plurality of images on a drawing surface at a higher density (see figures 6a-6f, and column 13, lines 1-column 15, line 6, column 16, line 55-column 17, line 3, and figures 10a-10d).

Re claim 21, Wellner further discloses the display section includes a plurality of projectors (see column 20, lines 5-18) capable of projecting screen images (i.e. image displayed on UI 252, figure 2) onto the image-forming surface (see figures 1-2, column 2, lines 27-44, column 5, line 65 - column 9, line 25) and displays the predetermined image (i.e. image 21) using the screen images projected by the individual projectors on the image-forming surface (see column 20, lines 5-18, and column 9, lines 20-58).

Re claim 22, Wellner further discloses an electronic device equipped with the preview device set forth in claim 1 (see figure 1-2).

Re claim 23, Wellner further discloses an image forming apparatus equipped with the preview device set forth in claim 1 (see figure 1-2).

3. Claim 6 is rejected under 35 U.S.C. 103 as being unpatentable over Wellner, US 5,511,148 in view of Manabe Naoki et al., JP 07-219068 further in view of Nakamura, US 6,416,186.

Re claim 6, Wellner fails to further disclose the distance of the display section from the image-forming surface is acquired based on the magnification and focal distance of an optical system used by the display section to project light.

However, Nakamura discloses the distance of the display section from the image-forming surface is acquired based on the magnification and focal distance of an optical system used by the display section to project light (see column 2, lines 26-33, and column 7, lines 22-57).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to modify the interactive copying system as disclosed by Wellner to include image recording & printing device as taught by Manabe Naoki, and the projection display techniques taught by Nakamura for the benefit of “easily position an image from a 1st image recording medium and easily record it at a desired position on a 2nd image recording medium when the image from the 1st image recording medium is recorded on the 2nd image recording medium” as taught by Manabe Naoki in abstract, and to have a “projection display unit that can project an image whose distortion is corrected” as taught by Nakamura at column 1, lines 5-6.

4. Claim 16 is rejected under 35 U.S.C. 103 as being unpatentable over Wellner, US 5,511,148 in view of Manabe Naoki et al., JP 07-219068 further in view of Fukao, US 2002/0126302.

Re claim 16, Wellner fails to further disclose color matching section for matching colors between the image displayed by the display section and the image drawn by the drawing section.

However, Fukao discloses color matching section for matching colors between the image displayed by the display section and the image drawn by the drawing section (i.e. printer) (see paragraphs 0002 and 0029, note that image can also be projected via using the output from video signal generator).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to modify the interactive copying system as disclosed by Wellner to include image recording & printing device as taught by Manabe Naoki, and the color matching techniques as taught by Fukao for the benefit of “easily position an image from a 1st image recording medium and easily record it at a desired position on a 2nd image recording medium when the image from the 1st image recording medium is recorded on the 2nd image recording medium” as taught by Manabe Naoki in abstract, and to provide “an image processing apparatus and method by which the user can easily predict adjustment results and readily designate desired color adjustment, and to provide an image processing system” as taught by Fukao at paragraph 0007.

***Note***

The examiner would like to point out that the claims 8, 12, 17, and 21 recite intended use for the preview device, as evidenced by the terms “capable of”, which may or may not import patentable weight to the claims. See MPEP 2106 for further details.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hasegawa Takeshi teaches display section (display means, see paragraph 9) for simulating a state where a predetermined image is actually drawn on an image-forming surface (see paragraphs 5-16) on which a tangible image is formed as something tangible when the image is printed or a sheet with the image is printed is pasted unlike intangible images such as projected images (see paragraphs 20-27, 40-46, 54-61).

Naoki also discloses whereby the display section is configured to allow a user to verify whether a predetermined image is drawn on the image-forming surface, to avoid a production of unintended results, and to improve drawing data creating efficiency (see paragraphs 2-53).

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAWANDEEP S. DHINGRA whose telephone number is (571) 270-1231. The examiner can normally be reached on M-F, 9:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler L. Haskins can be reached on 571-272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. D./  
Examiner, Art Unit 2625

/Twyler L. Haskins/  
Supervisory Patent Examiner, Art Unit 2625  
3/30/08